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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,719	02/16/2001	Joseph D. Lichtenhan	AFB00563	8873

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EXAMINER
MOORE, MARGARET G

ART UNIT	PAPER NUMBER
1712	6

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/783,719	LICHTENHAN ET AL.	
	Examin r	Art Unit	
	Margaret G. Moore	1712	

-- The MAILING DATE of this communication appears on the cov r sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 to 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1 to 9, 11, 13 to 15* is/are allowed.

6)☒ Claim(s) *10, 12, 16 to 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. Claims 10, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10:

This rejection is maintained from the previous office action. The *reactant* in claim 3 does not contain any "m" units. It is confusing to have "m" units in the reactant which are different from the "m" units in the final product.

Since the final product in this claim is specific to a product formed from a reactant having 8 Si atoms and only 1 R^3 group, the Examiner suggests replacing the broad reactant formula $[(RSiO_{1.5})_n(R^3SiO_{1.5})_m]_{\#}$ with the corresponding specific reactant $[(RSiO_{1.5})_7(R^3XSiO_{1.0})_1]_{\#}$. This avoids any confusion over the "m" values and formulas.

Claim 12:

This claim language is still confusing since it states that the compound is reacted with acid to form "a compound" (singular) of the following formulas (plural). Also it is unclear what compounds are formed as the final product. For instance is 7a formed as a compound or is it merely an intermediate compound that is never isolated?

The Examiner suggests this claim be amended to include language consistent with that found in claim 16, namely "is reacted with said acid to form the compound selected from the formulas 7a, 8a, 7c, 9a or 7d as follows".

Claims 16 and 17:

In view of the fact that these claims depend upon claim 5 as amended, X is undefined.

Claim 18:

It is unclear from the location of "when said compound has at least three open rings" what is further limited. Specifically it is unclear is this phrase modifies both F and OH or only OH.

Claims 19 and 26:

This rejection is maintained for reasons of record. Each claim must be clearly defined on its own merits. This claim is not clearly defined since reference to these formulas lacks antecedent basis. As claimed, one must refer to both claim 18 (or 25)

and many other claims to try to define this claim. Read in such a manner, this claim would be improperly multiply dependent (though the Examiner has not objected to it as such, instead opting to reject the claim as indefinite).

Claim 23:

It is confusing how formula 8b corresponds to the reactant formula in claim 20 since 8b has 4 –OH groups, while "m" can only be 1 or 2.

2. Claims 23, 27 to 29 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In claim 23, the reactant 8b fails to further limit claim 20 since it is broader than the reactant formula in claim 20. In claims 27 to 29, these claims are not considered to be further limiting since they are drawn to a composition, but depend upon a claim drawn to a method and these claims fail to further limit the method of claims 22, 23 and 24. Note too that formula 17 is not in claim 23 (for claim 28).

The Examiner suggest amended claims 27 to 29 to read as product by process type claims, i.e. "the composition of formula 17 as produced by the method of claim 22".

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application

being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 18 and19 are rejected under 35 U.S.C. 102(b) or (e) as being anticipated by Lichtenhan et al. '867 or Banaszak Holl et al.

Applicants have amended these claims to require that OH be present when there are at least three open rings. In Banaszak-Holl et al., see the formula on the bottom of column 7, having 3 open rings when X is –OH, and the formula on the top of column 8, having 4 open rings when X is –OH. In Lichtenhan et al., see Formula 1, having 3 open rings and 3 –OH groups. Both of these references anticipate these claims.

5. Claims 20, 21, 25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lichtenhan et al. '562 for reasons of record.

Applicants traverse this rejection by stating that '562 shows a polymer or linear chain product rather than a caged molecule. The Examiner recognizes this fact, but this does not change the fact that the process steps claimed are the same process steps as taught in '562. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established.

In the instant case, the product required by the method claim is produced by the same process as the process taught in '562. As such it would appear that the process in '562 would inherently produce at least some of the expanded ring as required by these claims.

For the record, the Examiner notes that upon further review, she has withdrawn the rejection of claims 22 to 24 over this reference since none of these specific starting formulas are taught therein.

6. Claims 1 to 9, 11 and 13 to 15 are allowed.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 703-308-4334. The examiner can normally be reached on Tues. and Thurs. 6:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on 703-308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9311 for regular communications and 703-872-9310 for After Final communications.

Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
July 10, 2002